

Remarks

Reconsideration of this Application is respectfully requested. Claims 1-15 are currently pending.

Drawing Objections

The Applicants have resubmitted a Request for Drawing Corrections in accompanying papers. The Applicants respectfully solicit an approval for the drawings and a withdrawal of the objection to the drawing.

Rejections Under 35 U.S.C. §103(a)

The Office Action rejected 1-5 and 9-15 under 35 U.S.C. §103(a) as being allegedly unpatentable over Smith et al. U.S. Patent No. 6,150,747 (“Smith”) and in view of Cox U.S. Patent No. 5,717,263 (“Cox”). The Applicant respectfully traverses the rejection.

Claims 1-5 and 9-15, *inter alia*, an electric motor that includes a first liquid barrier comprising at least one layer of polymeric resin material containing reinforcing fibers and a second liquid barrier comprising of at least one layer of polymeric resin material containing reinforcing fibers.

As the Office Action correctly notes, Smith fails to disclose, teach or suggest a first liquid barrier comprising at least one layer of polymeric resin material containing reinforcing fibers and a second liquid barrier comprising of at least one layer of polymeric resin material containing reinforcing fibers (see Office Action, ¶4). However, the Office Action then relies on Cox to cure

the deficiency of Smith. More specifically, the Office Action alleges that Cox shows a first liquid barrier (32 and 46 of Fig. 2) and a second liquid barrier (46 and 50 of Fig 2, see Office Action, pg. 4). The Applicant respectfully disagrees.

Cox fails to disclose, teach or suggest a first or second liquid barrier. Instead, Cox merely discloses a first layer 46 comprising of tows of carbon fibers in an epoxy resin material (Cox, col. 2 ll. 62-64) and an alleged second layer also comprising of tows of carbon fibers in an epoxy resin material (Cox, col. 2 ll. 62-64). For these layers, there is no mention, discussion, or suggestion that these layers are impervious to liquid. In fact, Cox fails to describe, disclose, teach or describe that the disclosed invention is to be used in submerged applications. Rather, Cox describes that the proscribed application for this composite rotor is for energy storage flywheel systems (Cox, col. 2 ll. 23-25). As such, there is no need for to make the composite rotor waterproof. Accordingly, Cox fails to disclose, teach or suggest the invention as recited by claims 1-5 and 9-15.

Moreover, there is no reasonable expectation of success for the combination of Smith and Cox. More particularly, Smith is directed at electric motor with a composite stator and rotor. As described by Smith, the electric motor is designed to improve corrosion resistance of the motor when submerged in corrosive environments (Smith, col. 3 ll. 27-30). Cox, on the other hand, describes the composite rotor is used in an energy storage flywheel systems (Cox, col. Ll. 24-27). The rotor described by Cox is designed to reduce strain (Cox, col. 1 ll. 28-32). As such, the composition of materials for each application, corrosive environment vs. strain-reduction, is different. In other words, materials used in a strain-reduction application may not be applicable

to corrosion prevention application. Thus, there is no reasonable expectation of success in applying the composite rotor of Cox to Smith.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP §2142

In the present case, the combination of Smith and Cox fails to show each and every element of the invention as recited by claims 1-5 and 9-15 and there is not reasonable expectation of success for at least the reasons given above. Accordingly, claims 1-5 and 9-15 are distinguished from the cited prior art and it is respectfully requested that the rejection be withdrawn.

The Office Action rejected claims 6-8 under 35 U.S.C. §103(a) as being allegedly unpatentable over Smith and in view of Cox and in further view of Kohlhass et al. U.S. Patent No. 6,454,547 (Kohlhass). The Applicant respectfully traverses the rejection.

Claims 6-8, *inter alia*, an electric motor that includes a first liquid barrier comprising at least one layer of polymeric resin material containing reinforcing fibers and a second liquid barrier comprising of at least one layer of polymeric resin material containing reinforcing fibers.

The combination of Smith, Cox and Kohlhass fail to disclose, teach or suggest each and every element of the invention as recited by claims 6-8. More particularly, the combination fail to teach or suggest a first liquid barrier comprising at least one layer of polymeric resin material containing reinforcing fibers and a second liquid barrier comprising of at least one layer of polymeric resin material containing reinforcing fibers.

For at least the reasons give above, Smith and Cox fail to teach a first liquid barrier comprising at least one layer of polymeric resin material containing reinforcing fibers and a second liquid barrier comprising of at least one layer of polymeric resin material containing reinforcing fibers. Kohlhass fails to cure this deficiency. Rather, Kohshass teaches a delivery unit that has an electric motor with vanes arranged on the lateral surface of a rotor (abstract). Kohlhass fails to mention the use of composite materials much less a first and second liquid barrier. Accordingly, Kohlhass fails to disclose, teach or suggest the invention as recited by claims 6-8.

Since Smith, Cox and Kohlhass each fails to suggest the invention as recited by claims 6-8, the combination of Smith, Cox and Kohlhass also fails to teach each and every claim element of the claimed invention. Accordingly, the invention as recited by claims 6-8 is patentable over the cited prior art.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Reply is respectfully requested.

Respectfully submitted,

Michael J. Bell (Reg. No. 39,406)
Anderson I. Chen (Reg. No. 44,436)

Date: November 4, 2004

HOWREY SIMON ARNOLD & WHITE, LLP
Box No. 34
1299 Pennsylvania Avenue, N.W.
Washington, D.C. 20004-2402
(202) 783-0800